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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,308	10/12/1999	PRADEEP K. KATHAIL	CISCO-1321	5986

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EXAMINER

PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/416,308

**Applicant(s)**

KATHAIL ET AL.

**Examiner**

HUNG Q PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 19,20,23-28 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19,23-27 and 31-34 is/are rejected.
- 7) ☒ Claim(s) 20 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 19-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

As indicated by applicant that applicant has not received A Notice of Draftpersons Review included in the Office Action of 12/19/2001. Therefore, A Notice of Draftpersons Review will be resent with the Office Action.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 19-22, 25, 27-30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. [USP 6,061,692] in view of Lakis et al. [USP 6,532,491 B1].**

Regarding claims 19 and 27, Thomas teaches a method and a product for constructing an information server incorporated a database of configuration information including configuration metadata, metadata content (Thomas, Col. 5, Lines 25-39) referred to as Metabase (Thomas, Col. 11, Lines 47-52).

As shown in FIG. 3, entity 114 is a software component, which has the appropriate permissions and a need to store information in or retrieve information from metabase 106, for example, a content index server which accesses information on local storage 104 and indexes the content of the information (Thomas, Col. 13, Lines 47-60). As seen, the entity 114 as disclosed by Thomas is a software component of the information server, or in different words, *instruction for directing a processing unit in information server to maintain Metabase or configuration database.*

Referring back to FIG. 3, FTP service 124, web service 126, MIME map 128, and logging 130 are also software components to retrieve information, access and return information objects in response to a request (Thomas, Col. 11, Lines 53-59). In order to discover changes that are made to the database, a notification mechanism is

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implemented. Software components or clients may register to be notified when certain events occur. For example, a component may register to be notified when a change is made to properties in the database (Thomas, Col. 6, Lines 57-62). A registration request may contain a handle or pointer to an entry point of metabase (Thomas, Col. 26, Lines 60-63). As shown in FIG. 11, the metabase system 316 receives a registration request from a client for notifying of changes (Thomas, Col. 25, Lines 62-64), wherein a client including both entities making requests of the information server and entities accessing the metabase (Thomas, Col. 4, Lines 5-9). As seen, a registration request or *notification request* from a client as disclosed by Thomas *is a request to receive notification of changes to configuration data of an object in network identified in said notification request*, and via the notification mechanism of the metabase system as *instruction for directing a processing unit in information server to receive a notification request*, a registration request is *sent from one* of software components, such as FTP service 124, web service 126, MIME map 128, and logging 130, as *plurality of subsystems*, which *is instruction executed by processing unit to provide an application of an internetwork operating system*.

Thomas further discloses the technique of *storing an identification of one of plurality* software components, such as FTP service 124, web service 126, MIME map 128, and logging 130, as *subsystems that transmitted said notification request in a record in metabase as database that stores said configuration data for object identified in said notification request* as in FIG. 4 and 5. As shown in FIG. 12B, when the events occur, the registered clients are identified at step 334, and notification is sent to the identified recipients at step 336 (Col. 27, Lines 6-17) as the step of *identifying one of* software components, such as FTP

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service 124, web service 126, MIME map 128, and logging 130, as *subsystem to notify in response to a change in said configuration data for object in record*, and obviously, the component is identified by its ID as disclosed in FIG. 5. As shown in FIG. 1 is a *media readable by said processing unit that stored the software components as instructions* (Col. 8, Lines 27-29).

The difference between the claimed invention and Thomas technique is *a router device* instead of information sever, and Thomas fails to teach *a notification flag is set in said record wherein said notification flag indicates that a notification must be sent responsive to a change*.

However, as suggested by Thomas, the disclosed technique may be practiced with other computer system configurations, or network PCs (Thomas, Col. 8, Lines 54-59).

Lakis teaches (Lakis, Col. 11, Lines 7-12) *a notification flag is set in said record wherein said notification flag indicates that a notification must be sent responsive to a change*.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Thomas method and product by implementing the technique in a router device, and setting a notification flag in order to determine whether a notification should be generated and discover changes that are made to configuration data in a router.

Regarding claims 25 and 33, Thomas and Lakis, in combination, teach all of the claimed subject matter as discussed above with respect to claims 19 and 27, Thomas further discloses the step of *receiving a remove notification request from said one of said plurality*

*of subsystems, wherein said remove notification request is a request to remove said one of said plurality of subsystems from said plurality of subsystems to be notified in response to a change in said configuration data, and removing said identification of said one of said plurality of subsystems from said record of said configuration data storing subsystems to be notified of a change in said configuration data* (Thomas, Col. 34, Lines 50-67).

**Claims 23-34, 26, 31-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas et al. [USP 6,061,692] in view of Lakis et al. [USP 6,532,491 B1], as applied to claims 21, 25, 29 and 33 above, and further in view of and Tabuchi [USP 6,446,093].**

Regarding claims 23 and 31, Thomas and Lakis, in combination, teach all of the claimed subject matter as discussed above with respect to claims 21 and 29, Thomas further discloses the step of *determining said notification request is configuration data of a name space, retrieving each child record of said record* (Thomas, Col. 25, Lines 20-48), but both of them fail to teach the step of *setting a notification flag in each said child record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of setting a notification flag in a record (Tabuchi, Col. 6, lines 15-54). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Thomas and Lakis product and method by including

the technique of setting a notification flag in a child record as taught by Tabuchi, and by doing this, a child record could be controlled and managed via access right.

Regarding claims 24 and 32, Thomas, Lakis and Tabuchi, in combination, teach all of the claimed subject matter as discussed above with respect to claims 23 and 31, Thomas further discloses the step of *receiving a change to configuration in a child record, retrieving said child record responsive to receiving said change, and transmitting notification of said change of said change to said one of said plurality of subsystems identified in said parent record* (Thomas, Col. 25, Lines 20-48). Tabuchi further discloses the step of *reading said notification flag in said child record responsive to retrieving said record, reading a parent record of said child responsive to reading said notification flag* (Tabuchi, Col. 1, lines 5-10, Col. 26, lines 27-28).

Regarding claims 26 and 34, Thomas and Lakis, in combination, teach all of the claimed subject matter as discussed above with respect to claims 25 and 33, but fail to disclose the step of *determining whether said configuration data for which said remove notification request is for a name space, retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from each said child record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of *determining whether said configuration data for which said remove notification request is for a name space, retrieving each*



*child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from each said child record* (Tabuchi, Col. 6, line 15-Col. 9, line 28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Thomas method by including the step of removing notification flag from the child record after retrieving the child record, and by including the step of removing and retrieving, a record could be controlled and managed for modifying via access right.

#### ***Allowable Subject Matter***

**Claims 20 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 20 and 28, Thomas and Lakis, in combination, teach all of the claimed subject matter as discussed above with respect to claims 19 and 27, but fail to teach or suggest the step of *receiving a change in said configuration data of said object; retrieving said record of said object, reading said notification flag, determining whether said notification flag is set, reading said identification of said one of said plurality of subsystems from said record of said object receiving to receiving said change of said configuration data responsive to a determination that said notification flag is set, and transmitting a notification of said change of*

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*configuration data of said object to said one of said plurality of subsystems responsive to said reading of said identification.*

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571-272-4107. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Hung Pham  
January 13, 2005

  
SHAHID ALAM  
PRIMARY EXAMINER

09/416308

NOTICE OF DRAFTSPERSON'S  
PATENT DRAWING REVIEWThe drawing(s) filed (insert date) 10/27/01 are:A. ☒ approved by the Draftsperson under 37 CFR 1.84 or 1.152.B. ☒ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawing must be submitted according to the instructions on the back of this notice.

<p>1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color. Color drawings are not acceptable until petition is granted. Fig(s) _____ Pencil and non black ink not permitted. Fig(s) _____</p> <p>2. PHOTOGRAPHS. 37 CFR 1.84(h) 1 full-tone set is required. Fig(s) _____ Photographs may not be mounted. 37 CFR 1.84(e) Poor quality (half-tone). Fig(s) _____</p> <p>3. TYPE OF PAPER. 37 CFR 1.84(e) Paper not flexible, strong, white, and durable. Fig(s) _____ Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) _____ Mylar, velum paper is not acceptable (too thin). Fig(s) _____</p> <p>4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes: 21.0 cm by 29.7 cm (DIN size A4) 21.6 cm by 27.9 cm (8 1/2 x 11 inches) All drawing sheets not the same size. Sheet(s) _____ Drawings sheets not an acceptable size. Fig(s) _____</p> <p>5. MARGINS. 37 CFR 1.84(g): Acceptable margins: Top 2.5 cm Left 2.5cm Right 1.5 cm Bottom 1.0 cm SIZE: A4 Size Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm SIZE: 8 1/2 x 11 Margins not acceptable. Fig(s) <u>2</u> <input checked="" type="checkbox"/> Top (T) <input checked="" type="checkbox"/> Left (L) <input checked="" type="checkbox"/> Right (R) <input checked="" type="checkbox"/> Bottom (B)</p> <p>6. VIEWS. 37 CFR 1.84(h) REMINDER: Specification may require revision to correspond to drawing changes. Partial views. 37 CFR 1.84(h)(2) Brackets needed to show figure as one entity. Fig(s) _____ Views not labeled separately or properly. Fig(s) _____ Enlarged view not labeled separately or properly. Fig(s) _____</p> <p>7. SECTIONAL VIEWS. 37 CFR 1.84 (h)(3) Hatching not indicated for sectional portions of an object. Fig(s) _____ Sectional designation should be noted with Arabic or Roman numbers. Fig(s) _____</p>	<p>8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i) Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____</p> <p>9. SCALE. 37 CFR 1.84(k) Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) _____</p> <p>10. CHARACTER OF LINES, NUMBERS, &amp; LETTERS. 37 CFR 1.84(i) <input checked="" type="checkbox"/> Lines, numbers &amp; letters not uniformly thick and well defined, clean, legible, and black (poor line quality). Fig(s) <u>1-9</u></p> <p>11. SHADING. 37 CFR 1.84(m) Solid black areas pale. Fig(s) _____ Solid black shading not permitted. Fig(s) _____ Shade lines, pale, rough and blurred. Fig(s) _____</p> <p>12. NUMBERS, LETTERS, &amp; REFERENCE CHARACTERS. 37 CFR 1.84(p) <input checked="" type="checkbox"/> Numbers and reference characters not plain and legible. Fig(s) <u>1-9</u> Figure legends are poor. Fig(s) _____ Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(1) Fig(s) _____ English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) _____ Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig(s) _____</p> <p>13. LEAD LINES. 37 CFR 1.84(q) Lead lines cross each other. Fig(s) _____ Lead lines missing. Fig(s) _____</p> <p>14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(i) Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Sheet(s) _____</p> <p>15. NUMBERING OF VIEWS. 37 CFR 1.84(u) Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____</p> <p>16. CORRECTIONS. 37 CFR 1.84(w) Corrections not made from prior PTO-948 dated _____</p> <p>17. DESIGN DRAWINGS. 37 CFR 1.152 Surface shading shown not appropriate. Fig(s) _____ Solid black shading not used for color contrast. Fig(s) _____</p>
<p>COMMENTS</p>	

REVIEWER

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DATE

11/27/01

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